Amendments to the Specification

Please amend the specification as follows:

On page 2, please replace the paragraph that starts on line 1 with the word "Further" and ends on line 7 with the word "capability" with the following amended paragraph:

Further,~~Further~~ in some embodiments,~~embodiments~~ it is desirable to have control over the dimensions (diameter, roundness, and their uniformity) of the metal matrix composite wire. Conventional metal matrix composite wires can be difficult to process to high levels of dimensional tolerance due, for example, to the difficulty in using conventional solid-state metalworking techniques such as drawing. There is a need in the art for continuous metal matrix composite wire that is produced with high dimensional precision, but without degradation of load-bearing capability.

On page 15, please replace the paragraph that starts on line 3 with the word "Typically" and ends on line 8 with the word "aluminum" with the following amended paragraph:

Typically, the molten metal 54 is degassed (e.g., reducing the amount of gas (e.g., hydrogen) dissolved in the molten metal 54)[[~~54~~]] during and/or prior to infiltration. Techniques for degassing molten metal 54 are well known in the metal processing art. Degassing the melt 54 tends to reduce gas porosity in the wire. For molten aluminum, the hydrogen concentration of the melt 54 is in some embodiments, less than 0.2, 0.15, or even less than 0.1 cm^3/100 grams of aluminum.

On page 19, please replace the paragraph that starts on line 13 with the word "Additional" and ends on line 15 with the word "reference" with the following amended paragraph:

Additional details regarding cladded metal matrix composite wires may be found, for example, in copending application having U.S. Serial No. 10/778488, filed February 3, 2004, ~~(Attorney Docket No. 56864US002),~~ the disclosure of which is incorporated herein by reference.

On page 21, please replace the paragraph that starts on line 17 with the word "Fiber" and ends on line 22 with the word "area" with the following amended paragraph:

Fiber diameter was measured optically using an attachment to an optical microscope (commercially available under the trade designation "DOLAN-JENNER MEASURE-RITE VIDEO MICROMETER SYSTEM", Model M25-0002, from Dolan-Jenner Industries, Inc. of ~~Lawrence~~Lawrence, MA) at 1000x magnification. The apparatus used reflected light observation with a calibrated stage micrometer. The breaking stress of each individual filament was calculated as the load per unit area.

On page 21, please replace the paragraph that starts on line 26 with the word "The" and ends on page 22, line 16 with the word "temperature" with the following amended paragraph:

The CTE was measured following ASTM E-228, published in 1995. The work was performed on a dilatometer (obtained under the trade designation "UNITHERM 1091") using a wire length of 5.1 cm (2 inch).~~(2 inch)).~~ A fixture was used to hold the sample composed of two cylinders of aluminum with an outer diameter of 10.7mm (0.42 inch) drilled to an inner diameter of 6.4 mm (0.25 inch). The sample was clamped by a set screw on each side. The sample length was measured from the center of each set screw. At least two calibration runs were performed for each temperature range with a National Institute of Standards and Technology (NIST) certified fused silica calibration reference sample (obtained under the trade designation "Fused Silica" from NIST of Washington, DC). Samples were tested over a temperature range from -75°C to 500°C with a heating ramp rate of 5°C in a laboratory air atmosphere. The output from the test was a set of data of dimension expansion vs. temperature that were collected every 50°C

during heating or every 10°C during cooling. Since CTE is the rate of change of expansion with temperature the data required processing to obtain a value for the CTE. The expansion vs. temperature data was plotted using a graphical software package (obtained under the trade designation "EXCEL" from Microsoft, Redmond, WA). A second order power function was fit to the data using the standard fitting functions available in the software to obtain an equation for the curve. The derivative of this equation was calculated, yielding a linear function. This equation represented the rate of change of expansion with temperature. This equation was plotted over the temperature range of interest, e.g., -75 to 500°C, to give a graphical representation of CTE vs. temperature. The equation was also used to obtain the instantaneous CTE at any temperature.

On page 24, please replace the paragraph that starts on line 28 with the word "An" and ends on page 25, line 22 with the word "(0.081 inch)" with the following amended paragraph:

An aluminum matrix composite wire was prepared using 34 tows of 1500 denier "NEXTEL 610" alumina ceramic fibers. Each tow contained approximately 420 fibers. The fibers were substantially round in cross-section and had diameters ranging from approximately 11-13 micrometers on average. The average tensile strength of the fibers (measured as described above) ranged from 2.76-3.58 GPa (400-520 ksi). Individual~~ksi). Individual~~ fibers had strengths ranging from 2.06-4.82 GPa (300-700 ksi). The fibers (in the form of multiple tows) were fed through the surface of the melt into a molten bath of aluminum, passed in a horizontal plane under 2 graphite roller, and then back out of the melt at 45 degrees through the surface of the melt, where a die body was positioned, and then onto a take-up spool (e.g. as described in U.S. Pat. No. 6,336,495 ~~((McCullough et al.),~~ (McCullough et al.), Fig. 1). The aluminum (>99.95% Aluminum from Belmont Metals, ~~NY,~~New York, NY) was melted in an alumina crucible having dimensions of 24.1 cm x 31.3 cm x 31.8 cm (9.5" x 12.5" x 12.5") (obtained from Vesuvius McDaniel of Beaver Falls, Pa.). The temperature of the molten aluminum was approximately 720°C. An alloy of 95% niobium and 5% molybdenum (obtained from PMTI Inc. of Large, PA) was fashioned into a cylinder having dimensions of 12.7 cm (5 inch) long x 2.5 cm (1 inch)

diameter. The cylinder was used as an ultrasonic horn actuator by tuning to the desired vibration (i.e., tuned by altering the length), to a vibration frequency of 20.06-20.4 kHz. The amplitude of the actuator was greater than 0.002 cm (0.0008 inch). The tip of the actuator was introduced parallel to the fibers between the rollers, such that the distance between them was <2.5 mm (<0.1 inch). The actuator was connected to a titanium waveguide which, in turn, was connected to the ultrasonic transducer. The fibers were then infiltrated with matrix material to form wires of relatively uniform cross-section and diameter. Wires made by this process had diameters of 2.06 mm (0.081 inch).

On page 27, please replace the table that starts on line 13 with the word "MCCW" and ends on line 14 with the word "10 tests" with the following amended table:

MCCW 20 of Example 1	ACW 26 of Example 1
Load = 5080 ± 53 N (1142 ± 27 lbs) (COV = 2.4%) Strain = 0.87 ± 0.04 % Modulus = 97.9 GPa (14.2 ± 1.7 Msi) Strength = 515 MPa (74.7 ± 1.8 ksi) 10 tests	Load = 4199 ± 151 N (944 ± 34 lbs) (COV = 3.6%) Strain = 0.75 ± 0.05 % Modulus~~modulus~~ = data not available Strength = 1260 MPa (183 ± 7 ksi) 10 tests

On page 28, please replace the paragraph that starts on line 7 with the word "Using" and ends on line 8 with the word "length" with the following amended paragraph:

Using the wire tensile Strength test described above, clad wire (MCCW 20) made in Example 2 was tested. 63.5 cm (25 inch gauge length).~~((25 inch gauge length)).~~